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Stainless & Carbon Steel Wire

 *Purpose & Passion*  
**Elyon Industry Co., Ltd.**

# Purpose & Passion

Purpose is the Future  
Passion is the Present

Purpose is the Destination  
Passion is the Way to it

When Purpose is right and invaluable  
Passion never stops and never dries up

You are our Purpose,  
our Future and our Destination  
We are making every effort to get to you,  
with great Passion

You are always right and invaluable  
We will never stop and will never dry up.

## Introduction

Elyon Industry Co Ltd is all about metal products. We supply Copper, Copper Alloy, Stainless Steel, Carbon Steel, Aluminum and special metals in the form of strip, coil, sheet/plate, wire, bar/rod, extrusion, tube/pipe, etc.

Purpose & Passion are our spirit and the followings are our principles.

- Proactive
- Prompt
- Precise

Speedy & In-time Delivery, Consistent & Reliable Quality and Competitive Prices are melted with our spirit & principles. All our metal products are supplied from manufacturing sites or through supply network if necessary.

You are our purpose and we are passion itself. NOW is the time for you to try our passion.

Thanks

# Elyon's professional 3P Services



*Why  
Elyon?*

**E**fficient Products Line  
**L**ead Time  
**Y**ield High Quality  
**O**utstandingly Small MOQ  
**N**ice Service, plus Wealth of  
Knowledge & Experience on Metals

## Spring Wire

Surface	Hardness	Grade	Dia (mm)
S-Coating	WPA	AISI 302, AISI 304, AISI 316	0.20~6.00
	WPB	AISI 302, AISI 304, 631J1	
Dull Finish	WPB	AISI 302, AISI 304	0.20~8.00
Bright (No Coat)	WPA	AISI 302, AISI 304, AISI 316	0.08~4.00
	WPB	AISI 302, AISI 304	
Nickel Coating (Bright or Dull)	WPA	AISI 302, AISI 304, AISI 316	0.20~4.50
	WPB	AISI 302, AISI 304	



• Please consult with us for the specifications not listed here.

## Cold Heading Wire

Class	Grade	S-Co		Bright	
		Annealed Finish (WSA)	Drawing Finish (WSB)	Annealed Finish (WSA)	Drawing Finish (WSB)
Austenite	AISI 302HQ (XM-7)	0.80mm~12.00mm	0.80mm~25.00mm	0.80mm~12.00mm	0.80mm~25.00mm
	AISI 304 (L)				
	AISI 304J3				
	AISI 316 (L)				
Ferrite	AISI 430	0.80mm~12.00mm	0.80mm~25.00mm	0.80mm~12.00mm	0.80mm~25.00mm
	AISI 434A				
Martensite	AISI 410	0.80mm~12.00mm	0.80mm~25.00mm	0.80mm~12.00mm	0.80mm~25.00mm

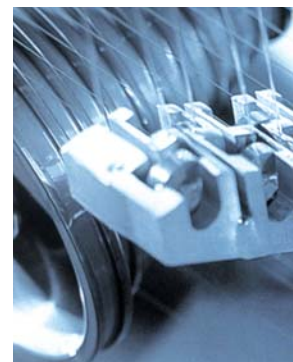
• Please consult with us for the specifications not listed here.

## Re-Drawing Wire

Diameter (mm)	Austenite	Elongation (%)	Ferrite	Elongation (%)
	AISI 304(L), 316(L)		AISI 430	
0.60 - 1.00	570 - 820	Min 30	450 - 700	Min 30
1.01 - 1.60	520 - 770			
1.61 - 2.60	500 - 750			

### Packing

- Pay-off drum : 100, 200kg
- Coil / Carrier : 50, 100, 200, 500kg
- Please consult with us for the specifications not listed here.



## Roping Wire

Spool	Material	Dia(mm)	Packing WT (kg)	Dia (mm)	AISI 302, 304		AISI 305, 316	
					kgf/mm <sup>2</sup>	N/mm <sup>2</sup>	kgf/mm <sup>2</sup>	N/mm <sup>2</sup>
DIN 100	Plastic	0.09 ~ 0.12	1.5	~ 0.18	225 ~ 249	2210 ~ 2445	173 above	1700 above
DIN 125	Plastic	0.10 ~ 0.25	3	0.19 ~ 0.25	220 ~ 245	2160 ~ 2405	173 above	1700 above
DIN 160	Plastic	0.16 ~ 0.30	6	0.26 ~ 0.38	218 ~ 242	2140 ~ 2375	169 above	1660 above
DIN 200	Plastic	0.20 ~ 0.80	12	0.39 ~ 0.48	214 ~ 238	2100 ~ 2335	169 above	1630 above
DIN 250	Plastic	0.25 ~ 1.00	25	0.49 ~ 0.64	207 ~ 231	2030 ~ 2265	166 above	1630 above
DIN 300	Plastic	0.25 ~ 0.80	50	0.65 ~ 0.76	200 ~ 221	1960 ~ 2170	166 above	1630 above
NS-5	Plastic	0.12 ~ 0.30	5	0.77 ~ 0.89	193 ~ 217	1895 ~ 2130	166 above	1630 above
NS-10	Plastic	0.20 ~ 0.80	12	0.90 ~ 1.02	183 ~ 210	1795 ~ 2060	166 above	1630 above
P-48	Plastic	0.16 ~ 0.30	5	1.03 ~ 1.27	179 ~ 200	1755 ~ 1960	162 above	1590 above
B-40	Steel	0.25 ~ 1.00	30	1.28 ~ 1.52	176 ~ 196	1725 ~ 1920	159 above	1590 above
B-60	Steel	0.25 ~ 1.00	30	1.53 ~ 1.78	172 ~ 193	1690 ~ 1890	155 above	1520 above
BP-60	Plastic	0.25 ~ 1.00	30	1.79 ~ 2.03	169 ~ 189	1660 ~ 1855	148 above	1450 above
Reel	Wooden	0.50 ~ 1.90	200	2.04 ~ 2.29	168 ~ 189	1650 ~ 1855	148 above	1450 above
Reel	Wooden	1.80 ~ 2.60	500	2.30 ~ 2.54	165 ~ 186	1620 ~ 1825	145 above	1420 above

• Please consult with us for the specifications not listed here.

## Nickel Free (Ni : Max 0.05%)

Finish	Dia (mm)	T/S (N/mm <sup>2</sup> )
S-Coating / Bright	0.20~0.90	800-1200
	1.00~4.50	540-780

• Please consult with us for the specifications not listed here.

## Flat / Square / Profile Wire



Type	Grade	Thickness (mm)	Width (mm)	Packing
Flat	AISI 302, 304, 430, 631JI	0.20-4.00	1.50-22.00	Spool, Reel, Cut Length
Square	AISI 302, 304, 430, 631JI	0.20-0.20	13.0×13.0	
Profile	AISI 302, 303, 304, 316, 420, 430			

• Please consult with us for the specifications not listed here.

## Free Cutting Wire

Dia (mm)	AISI 303, 303F, 303C, 316F		AISI 416, 420J2, 420F, 446		AISI 440C
	Soft	1/4 H	1/8 H	1/4 H	1/4 H
0.80mm~1.60mm	570 ~ 820	780 ~ 1130	640 ~ 800	750 ~ 930	
1.60mm~5.00mm	520 ~ 770	740 ~ 1080	590 ~ 750	700 ~ 880	640 ~ 930
5.00mm~12.00mm	500 ~ 750	740 ~ 1030	590 ~ 750	700 ~ 830	

• Please consult with us for the specifications not listed here.

(Unit : N/mm<sup>2</sup>)

## Weaving / Braiding Wire



Description	Grade	Temper	Type	Application	Available Size	
					Spool	Coil
Austenite	AISI 304(L)	soft	W1	Knitting, Mesh	0.06 - 0.75	0.7 - 12.0
	AISI 316(L)			Anti-corrosive		
	AISI 316Ti			Stabilized		
	AISI 310S			Heat-resistant		
	AISI 314			Heat-resistant		
	AISI 321			Stabilized		
Alloy	Inconel/Monel			Heat-resistant		

• Please consult with us for the specifications not listed here.

## Welding Wire

Type	Chemical Composition (%)									
	AWS	C	Si	Mn	P	S	Ni	Cr	Mo	Other
ER308	0.08		0.30-0.65	1.0-2.5	0.03	0.03	9.0-11.0	19.5-22.0	-	-
ER308L	0.03	0.30-0.65	1.0-2.5	0.03	0.03	9.0-11.0	19.5-22.0	-	-	
ER308LSi	0.03	0.65-1.00	1.0-2.5	0.03	0.03	9.0-11.0	19.5-22.0	-	-	
ER309	0.12	0.30-0.65	1.0-2.5	0.03	0.03	12.0-14.0	23.0-25.0	-	-	
ER309L	0.03	0.30-0.65	1.0-2.5	0.03	0.03	12.0-14.0	23.0-25.0	-	-	
ER309LSi	0.03	0.65-1.00	1.0-2.5	0.03	0.03	12.0-14.0	23.0-25.0	-	-	
ER310	0.08-0.15	0.30-0.65	1.0-2.5	0.03	0.03	20.0-22.5	25.0-28.0	-	-	
ER312	0.15	0.30-0.65	1.0-2.5	0.03	0.03	8.0-10.5	28.0-32.0	-	-	
ER316	0.08	0.30-0.65	1.0-2.5	0.03	0.03	11.0-14.0	18.0-20.0	2.0-3.0	-	
ER316L	0.03	0.30-0.65	1.0-2.5	0.03	0.03	11.0-14.0	18.0-20.0	2.0-3.0	-	
ER316LSi	0.03	0.65-1.00	1.0-2.5	0.03	0.03	11.0-14.0	18.0-20.0	2.0-3.0	-	
ER317	0.08	0.30-0.65	1.0-2.5	0.03	0.03	13.0-15.0	18.5-20.5	3.0-4.0	-	
ER317L	0.03	0.30-0.65	1.0-2.5	0.03	0.03	13.0-15.0	18.5-20.5	3.0-4.0	-	
ER321	0.08	0.30-0.65	1.0-2.5	0.03	0.03	9.0-10.5	18.5-20.5	-	Ti9×C1.0	
ER347	0.08	0.30-0.65	1.0-2.5	0.03	0.03	9.0-11.0	19.0-21.5	-	Nb+Ta10×C1.0	
ER430	0.10	0.50	0.60	0.03	0.03	0.60	15.5-17.0	-	-	
ER410	0.12	0.50	0.60	0.03	0.03	0.60	11.5-13.5	0.75	-	
ER430TI	0.12	0.75	1.00	0.4	0.03	-	16.0-18.0	-	6×C	
ER430MO	0.12	1.00	1.00	0.4	0.03	-	14.0-18.0	0.75-1.25	-	

• Please consult with us for the specifications not listed here.

# Available Grade & Applications

Size : 0.08mm - 25.00mm

Hardness : Soft, 1/8H, 1/4H, 1/2H, 3/4H, FH



Division	Grade	EN No.	Chemical Composition	Characteristics and Application
A U S T E N I T E	202	1,4371	18Cr-5Ni-8Mn-N	Low Nickel, 302 Replacement, Kitchenware
	CS204CU		17Cr-2Ni-2Cu-N	Low Nickel, 304 Replacement
	202M		17Cr-7Ni-7Mn-N	Super hardness, Non-Magnetic, Shaft
	302	1,4310	18Cr-8Ni-0.1C	High Tensile strength. Spring, Constructional use
	303	1,4305	18Cr-8Ni-0.2S	Good free-cutting ability. Automatic lathe, Pin
	303Cu		18Cr-8Ni-2.5Cu	Improved free cutting and cold heading quality, Shafts Usage
	303F		18Cr-8Ni-0.3S	Better free cutting quality than 303
	304	1,4301	18Cr-8Ni	Most various usage. General purpose, Kitchenware
	304L	1,4306	18Cr-9Ni-LowC	Extreme low carbon steel. High anti-corrosion
	304HC		18Cr-8Ni-2.5Cu	Cu addition into 304. Super cold heading, Bolt, Nut, Nail
	304J3		18Cr-8Ni-2Cu	Natural properties between 304 and XM-7, Bolts and Nuts Usage
	CS304CU		17Cr-8Ni-3.5Cu	Lower Nickel than XM-7, for Cold Heading, Bolt, Nut
	305	1,4303	18Cr-13Ni-0.1C	Low work hardening. Cold heading quality
	309S	1,8330	22Cr-12Ni	High anti-corrosive and heat-resistant for high temperature use
	310S	1,4845	25Cr-20Ni	Oxidation resistance. Heat-resistant conveyor belts
	314		25Cr-20Ni-2Si	Enhanced hardness. Heat-resistant conveyor belts
	316	1,4401	18Cr-12Ni-2.5Mo	More corrosion-resisting than 304. Anti-rust purpose
	316L	1,4404	18Cr-12Ni-2.5Mo-LowC	Extreme low carbon 316. High anti-corrosion
	316F		18Cr-12Ni-2.0Mo-0.1S	Enhanced free cutting quality by adding sulphur into 316
	316LF		18Cr-12Ni-2.0Mo-0.1S-LowC	18Cr-12Ni-2.0Mo-0.1S-LowC
316Ti	1,4571	18Cr-12Ni-2.5Mo-Ti	Improved intergranular corrosion resisting by adding titanium into 316	
321	1,4541	18Cr-9Ni-Ti	Ti addition. High temperature purpose	
XM-7	1,4567	18Cr-9Ni-3.5Cu	Cu addition into 304. Enhanced cold heading quality	
F E R R I T E	430	1,4016	18Cr	Good anti-corrosion. Bolts, Nuts, Scrubber
	434	1,4112	18Cr-1Mo	Improved grade. Better anti-corrosion than 430
	434A		18Cr-1Cu	Improved grade. High quality scrubber
	446		25Cr	Enhanced anti-corrosion ability, electrical appliances
M A R T E N S I T E	410	1,4006	13Cr	High machinability. Fasteners
	416	1,4005	13Cr-HighC	Better free cutting for automatic lathe
	420J2	1,4028	13Cr-0.3C	Excellent hardness. Machine shafts, Electric shafts
	420F		13Cr-HighC	Improved grade. Better machinability than 420J2
	440c	1,4125	18Cr-1C	Highest hardness among Heat-resistant stainless steel, for nozzle, bearing

• Please consult with us for the specifications not listed here.

## Hard Drawn Steel Wire



NOMINAL DIAMETER	TENSILE STRENGTH N/mm <sup>2</sup> (Kgf/mm <sup>2</sup> )		
	SWA	SWB	SWC
0.60	1570-1810 (160-185)	1810-2110 (185-215)	2110-2400 (215-245)
0.65	1570-1810 (160-185)	1810-2110 (185-215)	2110-2400 (215-245)
0.70	1520-1770 (155-180)	1770-2060 (180-210)	2060-2350 (210-240)
0.80	1520-1770 (155-180)	1770-2010 (180-205)	2010-2300 (205-235)
0.90	1520-1770 (155-180)	1770-2010 (180-205)	2010-2260 (205-230)
1.00	1470-1720 (150-175)	1720-1960 (175-200)	1960-2210 (200-225)
1.20	1420-1670 (145-170)	1670-1910 (170-195)	1910-2160 (195-220)
1.40	1370-1620 (140-165)	1620-1860 (165-190)	1860-2110 (190-215)
1.60	1320-1570 (135-160)	1570-1810 (160-185)	1810-2060 (185-210)
1.80	1270-1520 (130-155)	1520-1770 (155-180)	1770-2010 (180-205)
2.00	1270-1470 (130-150)	1470-1720 (150-175)	1720-1960 (175-200)
2.30	1230-1420 (125-145)	1420-1670 (145-170)	1670-1910 (170-195)
2.60	1230-1420 (125-145)	1420-1670 (145-170)	1670-1910 (170-195)
2.90	1180-1370 (120-140)	1370-1620 (140-165)	1620-1860 (165-190)
3.20	1180-1370 (120-140)	1370-1570 (140-160)	1570-1810 (160-185)
3.50	1180-1370 (120-140)	1370-1570 (140-160)	1570-1770 (160-180)
4.00	1180-1370 (120-140)	1370-1570 (140-160)	1570-1770 (160-180)
4.50	1130-1320 (115-135)	1320-1520 (135-155)	1520-1720 (155-175)
5.00	1130-1320 (115-135)	1320-1520 (135-155)	1520-1720 (155-175)
5.50	1080-1270 (110-130)	1270-1470 (130-150)	1470-1670 (150-170)
6.00	1030-1230 (105-125)	1230-1420 (125-145)	1420-1620 (145-165)
6.50	1030-1230 (105-125)	1230-1420 (125-145)	1420-1620 (145-165)
7.00	980-1180 (100-120)	1180-1370 (120-140)	1370-1570 (140-160)
8.00	980-1180 (100-120)	1180-1370 (120-140)	1370-1570 (140-160)
9.00	930-1130 (95-115)	1130-1320 (115-135)	1320-1520 (135-155)
10.00	930-1130 (95-115)	1130-1320 (115-135)	1320-1520 (135-155)
11.00	-	-	1080-1270 (110-130)
12.00	-	-	1080-1270 (110-130)
13.00	-	-	1030-1230 (105-125)

• Available Specification : JIS G 3521, ASTM A 227, DIN 17223, BS 5216

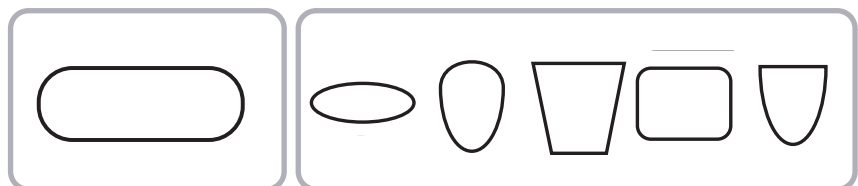


## Music Spring Wire

NOMINAL DIAMETER	MUSIC SPRING WIRE			
	TENSILE STRENGTH N/mm <sup>2</sup> (Kgf/mm <sup>2</sup> )			
	SWP-A GRADE		SWP-B GADE	
0.60	2210-2450	(225-250)	2450-2700	(250-275)
0.65	2210-2450	(225-250)	2450-2700	(250-275)
0.70	2160-2400	(200-245)	2400-2650	(245-270)
0.80	2110-2350	(215-240)	2350-2600	(240-265)
0.90	2110-2300	(215-235)	2300-2500	(235-255)
1.00	2060-2260	(210-230)	2260-2450	(230-250)
1.20	2010-2210	(205-225)	2210-2400	(225-245)
1.40	1960-2160	(200-220)	2160-2350	(220-240)
1.60	1910-2110	(195-215)	2110-2300	(215-235)
1.80	1860-2060	(190-210)	2060-2260	(210-230)
2.00	1810-2010	(185-205)	2010-2210	(205-225)
2.30	1770-1960	(180-200)	1960-2160	(200-220)
2.60	1770-1960	(180-200)	1960-2160	(200-220)
2.90	1720-1910	(175-195)	1910-2110	(195-215)
3.20	1670-1860	(170-190)	1860-2060	(190-210)
3.50	1670-1810	(170-185)	1810-1960	(185-200)
4.00	1670-1810	(170-185)	1810-1960	(185-200)
4.50	1620-1770	(165-180)	1770-1910	(180-195)
5.00	1620-1770	(165-180)	1770-1910	(180-195)
5.50	1570-1710	(160-175)	1710-1860	(175-190)
6.00	1520-1670	(155-170)	1670-1810	(170-185)
6.50	1520-1670	(155-170)		
7.00	1470-1620	(150-165)		
8.00	1470-1620	(150-165)		

• Available Specification : JIS G 3522, ASTM A 228, DIN 17223, BS 5216

## Flat and Shaped Wire



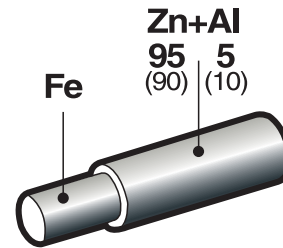
	Flat Wire	Shaped wire	
Type of Process	2 Sides Rolling	4 Sides Rolling	Dies Drawing

## Tin Coated High Carbon Wire

Dia (mm)	Type	Application
0.20~0.75	Round, Hexagon	String Making Spring

## Zinc Aluminum Galvanized Wire

Dia (mm)	Type (Zn + Al)
0.30~5.00	95:5, 90:10



## Zinc Wire

Product Standard	Physical Characteristics (%)								
	Alloy Symbol	Zn	Pb	Fe	Cd	Al	Cu	Sn	Permitted
	Pure Zinc	99.99 Min	0.003 Max	0.003 Max	0.003 Max	0.001 Max	0.002 Max	0.001 Max	0.01
	SHR Zinc	99.95 Min	0.03 Max	0.02 Max	0.01 Max	0.01 Max	0.002 Max	0.001 Max	0.05
	Diameter & Tolerance (mm)								
	1.0~1.6			+0 , -0.05					
	2.0~2.5			+0 , -0.06					
	3.0~4.76			+0 , -0.07					
	Physical Characteristics								
	Alloy Symbol	Melting Point(°C)		Tensile Strength(kg/mm <sup>2</sup> )		Elongation(%)			
Pure Zinc	419		10~12		40 Min				
SHR Zinc			12~15						
Packing	Bobbin		15.30 kg						
	Papper Drum		30.50.100.200 kg						
	According to customer's request								

## Tin Zinc Alloy Wire

Product Standard	Physical Characteristics (%)								
	Alloy Symbol	Sn	Zn	Sb	Cu	Fe	Mg	Pb	Al
	TZ9010	90±1.0	Bal.	0.1 Min	0.1 Min	0.01Max	0.01Max	0.3Max	0.01Max
	TZ8019	80±1.0		0.7±0.2	0.5±0.2				
	TZ7326	73±1.0		0.7±0.2	0.5±0.2				
	TZ7030	70±1.0		0.1Min	0.1 Min				
	TZ6732	67±1.0		0.7±0.2	0.5±0.2				
	TZ6040	60±1.0		0.1 Min	0.1 Min				
	S-8 Bar	80±1.0		5±1.0	-				

# Copper & Copper Alloy Wire

## Copper Wire

Alloy No.	Chemical Composition (%)					
	Cu	Pb	Fe	Sn	Zn	P
C1100	99.90 Min					
C1220	99.90 Min					0.015-0.04
C1020	99.96 Min					

## Brass Wire

Alloy No.	Chemical Composition (%)					
	Cu	Pb	Fe	Sn	Zn	P
C2100	94-96	0.05 Max	0.05 Max		Rem	
C2200	89-91	0.05 Max	0.05 Max		Rem	
C2300	84-86	0.05 Max	0.05 Max		Rem	
C2600	68.5-71.5	0.05 Max	0.05 Max		Rem	
C2700	63-67	0.05 Max	0.05 Max		Rem	
C2800	59-63	0.10 Max	0.07 Max		Rem	
C4641	59-62	0.5 Max	0.3 Max	0.5-1.0	Rem	
Alloy No.	Cu	Pb	Fe	Sn + Fe	Zn	P
C3604	57-61	1.8-3.7	0.5 Max	1.2 Max	Rem	

## Bronze Wire

Alloy No.	Chemical Composition (%)								
	Cu	Pb	Fe	Sn	Al	Ni	Zn	Mn	P
C5102	REM			4.5-5.5					0.03-0.35
C5191	REM			5.5-7.0					0.03-0.35
C5212	REM			7.0-9.0					0.03-0.35
C5440	REM	3.5-4.5		3.5-4.5			1.5-4.5		0.01-0.50
Alloy No.	Cu	Pb	Fe	Sn	Al	Ni	Zn	Mn	Si
C6510	REM	0.05 Max	0.8 Max				1.5 Max	0.7 Max	0.8-2.0
C6550	REM	0.05 Max	0.8 Max			0.6 Max	1.5 Max	0.5-1.3	2.8-3.8

## Nickel Silver Wire

Alloy No.	Chemical Composition (%)								
	Cu	Pb	Fe	Sn	Al	Ni	Zn	Mn	P
C7570	65.0-68.0	0.10 Max	0.25 Max			11.0-13.0	REM	0.5 Max	
C7451	63.0-67.0	0.10 Max	0.25 Max			8.5-11.0	REM	0.5 Max	
C7521	61.0-67.0	0.10 Max	0.25 Max			16.5-19.5	REM	0.5 Max	
C7541	59.0-65.0	0.10 Max	0.25 Max			12.5-15.5	REM	0.5 Max	
C7701	54.0-56.0	0.10 Max	0.25 Max			16.5-19.5	REM	0.5 Max	

## Cupro Nickel Wire

Alloy No.	Chemical Composition (%)								
	Cu	Pb	Fe	Sn	Al	Ni	Zn	Mn	P
C7060	REM	Max 0.05	1.0-1.8			9.0-11.0	Max 1.0	Max 1.0	
C7100	REM	Max 0.05	Max 1.0			19.0-23.0	Max 1.0	Max 1.0	
C7150	REM	Max 0.05	0.4-1.0			29.0-33.0	Max 1.0	Max 1.0	
C7280	REM	Max 0.05	Max 0.6			8.5-10.5	Max 0.5	Max 0.2	

Copper Phosphorus Brazing Wire / Rod  
Silver Alloy Brazing Wire / Rod / Strip



#1806, Centum IS Tower, 1209, Jaesong-Dong,  
Haeundae-Gu, Busan, Korea

TEL. +82-51-780-9040 ~ 5

FAX. +82-51-780-9044

E-mail: [elyon@elyonindustry.com](mailto:elyon@elyonindustry.com)

Website: [www.elyonindustry.com](http://www.elyonindustry.com)